



Gray-bellied Hawk, *Accipiter poliogaster* (Temminck, 1824) (Accipitriformes: Accipitridae), in Costa Rica

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Abstract: Gray-bellied Hawk (*Accipiter poliogaster*) is a diurnal raptor with a distribution range and movements poorly known. A juvenile was recorded in Costa Rica in 2008 and 2009 for in the Caribbean lowlands. In this note we reported the first adult observation for Costa Rica and a new locality. Even though is uncertain how this species of bird was able to arrive to Costa Rica, we discuss possible explanations for that.

Key words: Gray-bellied Hawk, raptor, distribution, Costa Rica

The Gray-bellied Hawk, *Accipiter poliogaster* (Temminck, 1984), is a rare, but largely distributed forest hawk, recorded along margins of riparian forest, lowland forest, and patches of dense woodlands in the eastern Colombian Andes, northwestern and eastern Ecuador, southern Venezuela and Guyana, Brazil, eastern Peru, Bolivia and Paraguay to northern Argentina (Thiollay 1994; Ridgely and Greenfield 2001; Márquez *et al.* 2005; Schulenberg *et al.* 2007). In Costa Rica, it has been recorded only two times previously and is considered as an accidental species (Sandoval and Sánchez 2014). The first report was on 26 June 2008 on the edge of Puerto Viejo River at La Selva Biological Station, Heredia province (10°26'17.9" N, 084°00'27.0" W). The second report was on 24 March 2009 close from the first sight in the edge of the same river (Obando *et al.* 2009). Both observations were from a juvenile bird, but it was not possible to determine if it was the same individual. Here we report the first adult bird observed in Costa Rica and a new locality for this species in this country.

On 12 April 2014 at 10:30 h, CC observed an adult individual of Gray-bellied Hawk (probably a female due to body size) in a mature second growth rainforest at Boca Tapada, close to Laguna Lagarto Lodge, San Carlos, Alajuela province, Costa Rica (10°41'10" N, 084°10'50" W). CC was guiding a group of tourists when suddenly a big bird flew up from the forest interior to the edge of the trail and perched next to the trail at 10 m height on a branch of a medium sized tree (Figure 1). The hawk had a piece of a prey in the beak but it was not possible to determine the species or kind.

The observed individual showed a yellow cere, iris and legs,



Figure 1. Gray-bellied Hawk (*Accipiter poliogaster*) observed at Boca Tapada, San Carlos, Alajuela province, on 12 April 2014 (photo: Christian Contreras).

a tail with three wide gray bars, and black cheeks (Figure 1), all of them are diagnostic characteristics for this species. These characteristics also were used to separate from the similar resident species in the observation area such as Bicolored Hawk, *Accipiter bicolor* (Vieillot, 1817), whose adult has rufous thighs and juveniles lack black cheeks; also to compare to the Slaty-backed Forest-falcon, *Micrastur mirandollei* (Schlegel, 1862), that has dark brown iris, thin tail bars, and larger tarsus (Stiles and Skutch 1989; Thiollay 1994; Ferguson-Lees and Christie 2001).

The northernmost general distribution of the Grey-bellied Hawk was in northern Colombia, along Cauca River, except for one record in Panama in February 2012 (Ferguson-Lees and Christie 2001; Audubon Panamá 2012; Bierregaard *et al.* 2013). This means that Costa Rican observations are about 1,000 km north from the previous known distribution for the species and 745 linear km from the report in Panama.

So far, the possible reasons why Gray-bellied Hawks have reached Costa Rica beyond the usually accepted distribution of this species' range have not been discussed. Therefore, we offer some hypotheses of how these birds may have reached Costa Rica. First, all records could derive from a single animal observed in 2008 and 2009 that survived and moved from La Selva, Sarapiquí to Boca Tapada, San Carlos, a distance of approximately 35 km. Second, there may have been two (if the individual from first or second observation was the same one) or three different individuals, that moved further north than usual during the austral migrations, given that the dates of these observations coincide with the austral migrant movements of this species (March to June; Márquez *et al.* 2005; Schulenberg *et al.* 2007). It is hard to determine if our observation and the two former reports are from the same bird or different individuals. Finally, the Gray-bellied Hawk has recently been observed to inhabit and nest in human-disturbed areas (Boesing *et al.* 2012). The ability of the species to occupy such areas, as many of *Accipiter* species (Ferguson-Lees and Christie 2001, Bierregaard *et al.* 2013), may influence a range expansion in the future.

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LITERATURE CITED

- Audubon Panamá. 2012. *Lista de aves de Panamá*. Panamá: Audubon Panamá. 30 pp.
- Bierregaard, R.O., D.A. Christie, Kirwan, G.M. and Bonan, A. 2013. Grey-bellied Goshawk (*Accipiter poliogaster*); in: J. del Hoyo, A. Elliott, J. Sargatal, D.A Christie AND E. de Juana (eds.). *Handbook of the Birds of the World Alive*. Barcelona: Lynx Edicions. Accessible at <http://www.hbw.com/node/53041/>. Captured on 20 May 2014.
- Boesing, A., W. Menq and L. Dos Anjos. 2012. First description of the reproductive biology of the Grey-bellied Hawk (*Accipiter poliogaster*). *The Wilson Journal of Ornithology* 124(4): 767–774 (doi: 10.1676/1559-4491-124.4.767).
- Ferguson-Lees, J. and D.A. Christie. 2001. *Raptors of the World*. Boston: Houghton Mifflin Company. 992 pp.
- Márquez C., M. Bechar, F. Gast and V. Vanegas. 2005. *Aves rapaces diurnas de Colombia*. Bogotá: Instituto de Investigación de Recursos Biológicos "Alexander von Humboldt". 394 pp.
- Marín-Espinoza, G., S. Guevara-Vallera, A. Prieto-Arcas, J. Muñoz-Gil and Y. Carvajal-Moreno. 2011. Comercialización ilegal de aves silvestres: un caso en Venezuela. *The Biologist* 9(1): 38–52.
- Obando, G., J. Chaves-Campos, R. Garrigues, M. Montoya, O. Ramírez, L. Sandoval and J. Zook. 2009. Lista oficial de las aves de Costa Rica Actualización 2009. *Zeledonia* 13(2): 37.
- Ridgely, R. S. and P. J. Greenfield. 2001. *The Birds of Ecuador: Field Guide*. Ithaca: Cornell University Press. 740 pp.
- Robinson, S. 1994. Habitat selection and foraging ecology of raptors in Amazonian Peru. *Biotropica* 26(4): 443–458 (doi: 10.2307/2389239).
- Sandoval, L. and C. Sánchez. 2014. *Lista de aves de Costa Rica: décimo séptima actualización*. San José: Unión de Ornitólogos de Costa Rica. 33 pp.
- Schulenberg, T., D. Stotz, D. Lane, J. O'Neil and T. Parker. 2007. *Birds of Peru*. New Jersey: Princeton University Press. 664 pp.
- Stiles, F.G. and A.F. Skutch. 1989. *A Guide to the Birds of Costa Rica*. Ithaca: Cornell University Press. 511 pp.
- Thiollay, J. 1994. Family Accipitridae (Hawk and Eagles); pp. 252–254, in: J. del Hoyo, A. Elliott and J. Sargatal. (eds.). *Handbook of the Birds of the World. Volume 2: New World Vultures to Guinea-fowl*. Barcelona: Lynx Edicions.

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